

INDEX

DOKLADY BOTANICAL SCIENCES

Volumes 196-201, 1971



AUTHOR INDEX

DOKLADY BOTANICAL SCIENCES

Volumes 196-201, 1971

(A translation of the Botanical Sciences sections of Doklady Akademii Nauk SSSR)

A

Aksenova, V. A. - 60
Akulova, E. A. - 81
Andreeva, I. N. - 23
Andrianov, V. K. - 43
Antipina, A. I. - 132
Artamkina, I. Yu. - 20
Atanasov, A. I. - 46

B

Babenko, V. I. - 129
Beresnev, G. F. - 141
Bichurina, A. A. - 72
Bil', K. Ya. - 49
Bizenkova, L. S. - 105
Bulychev, A. A. - 43
Butenko, R. G. - 46

C

Chailakhyan, M. Kh. - 108
Chel'tsova, L. P. - 30
Churina, M. B. - 189

D

Davydova, M. A. - 5
Demin, A. P. - 169
Dorofeeva, L. S. - 18

E

Eroshin, N. S. - 141

G

Gordon, L. Kh. - 72
Grigor'eva, M. N. - 9
Gruzdeva, L. P. - 105
Gurevich, A. A. - 136

I

Ishmukhametova, N. N. - 153

K

Kamenskii, V. V. - 123
Karatygin, I. V. - 165
Karnaughov, V. N. - 49

Karpilov, Yu. S. - 49
Khavkin, È. E. - 112, 132, 156
Khein, Kh. Ya. - 147
Kholodenko, V. P. - 139
Klimenko, V. G. - 11
Kochankov, V. G. - 84, 116
Kotin, A. M. - 161
Ktitorova, I. N. - 87
Kulaev, I. S. - 139
Kumakov, V. A. - 123
Kurella, G. A. - 43
Kutyrin, V. M. - 20

L

Levina, A. S. - 105
Likholat, T. V. - 105
Litvin, F. F. - 43
Livshin, A. Z. - 77
Lyalin, O. O. - 87

M

Malinovskii, A. V. - 57
Malyshев, O. G. - 49
Marutyan, S. A. - 33
Maslova, I. P. - 23
Metlitskii, L. V. - 5, 120
Misharin, S. I. - 132
Mis'yuk, L. A. - 69
Morozova, E. V. - 105
Mukhin, E. N. - 81

N

Nguyen Din Guen - 60
Nichiporovich, A. A. - 147
Nikiforov, E. A. - 14
Nikiforova, V. I. - 14

O

Okorokov, L. A. - 139
Oleinikova, T. V. - 173
Osipova, O. P. - 147
Ovcharenko, G. A. - 57
Ozeretskovskaya, O. L. - 5

P

Peive, Ya. V. - 57

Peshkova, A. A. - 156
Popova, I. A. - 175
Protsenko, M. A. - 120
Prudnikov, V. N. - 66
Pumpyanskaya, S. L. - 98

R

Rabotnov, R. A. - 169
Rakitina, Z. G. - 77
Reimers, F. È. - 156
Rubin, B. A. - 60
Ryzhova, E. F. - 175

S

Saakov, V. S. - 90, 184
Samuilov, F. D. - 14, 53
Samygin, G. A. - 77
Sapozhnikov, D. I. - 175
Sapozhnikova, E. V. - 18
Savich, M. S. - 57
Semenenko, V. E. - 94
Shakhabazov, V. G. - 3
Shakhov, A. A. - 180
Shcherbakova, A. M. - 126
Shemakhanova, N. M. - 120
Shestopalova, N. G. - 3
Shidlovskaya, I. L. - 66
Sid'ko, F. Ya. - 141
Slepyan, È. I. - 161
Solntseva, M. P. - 39
Spektorova, L. V. - 178
Startseva, A. V. - 153
Stroganova, M. A. - 147

T

Tauts, M. I. - 94
Tereskov, I. A. - 141
Tishchenko, V. P. - 18
Tkachenko, R. I. - 11

V

Vartapetyan, B. B. - 23
Vasyukova, N. I. - 5
Velikanov, L. P. - 98
Volkov, D. I. - 66

Volkov, G. A. - 69
Volodin, B. B. - 63

Y

Yagodin, B. A. - 57

Yanina, L. I. - 108
Yuferova, S. G. - 57

Z

Zakharova, T. K. - 136

Zakharova, V. A. - 141
Zanchenko, V. A. - 180
Zholkevich, V. N. - 9
Zeleneva, I. V. - 112
Zenchenko, V. A. - 26
Zholkevich, V. N. - 66

TABLES OF CONTENTS

DOKLADY BOTANICAL SCIENCES Volumes 196-201, 1971

(A translation of the Botanical Sciences sections of Doklady Akademii Nauk SSSR)

VOLUME 196, JANUARY - FEBRUARY, 1971

Engl./Russ.

PLANT CYTOLOGY

Certain Peculiarities of the Nucleus and Hybrid Onion Nucleolus in Cells - V. G. Shakhbazov and N. G. Shestopalova	3	1207
--	---	------

PHYTOPATHOLOGY

Glycoalkaloids in Healthy and Damaged Potato Tubers - O. L. Ozeretskaya, M. A. Davydova, N. I. Vasyukova, and L. V. Metlitskii	5	1470
--	---	------

PLANT PHYSIOLOGY

Diphasic Character of Viscosity Changes in Protoplasm of Plant Cells under Conditions of Water Deficiency - V. N. Zholkevich and M. N. Grigor'eva	9	717
Investigation of Proteins of Ripening Pea Seeds by Chromatography on DEAE-Cellulose and Paper Electrophoresis - V. G. Klimenko and R. I. Tkachenko	11	719
Investigation of the State of Water in Plant Tissues by the Nucelar Spin Echo Method - F. D. Samuilov, E. A. Nikiforov, and V. I. Nikiforova	14	723
Structural Role of Pectins in Relation to Their Qualitative Characteristics - E. V. Sapozhnikova, L. S. Dorofeeva, and V. P. Tishchenko	18	727
Effect of Water on the Oxidizing and Reducing Properties of Chlorophyll and Its Analogs - I. Yu. Artamkina and V. M. Kutyurin	20	980
Ultrastructure of Rice Coleoptile Cells under Aerobic and Anaerobic Conditions - B. B. Vartapetyan, I. N. Andreeva, and I. P. Maslova	23	1231
Influence of Vernalization on the Conversion of Sucrose - V. A. Zenchenko	26	1234
Changes in the Position of the Isoelectric Point of the Cytoplasm, Nucleus, and Nucleolus in Cells of Dormant and Vegetating Growth Cones - L. P. Chel'tsova	30	1238
Dynamics of ATP in Grape Shoots in Connection with the Frost-Resistance of the Variety - S. A. Marutyan	33	1467

VOLUME 197, MARCH - APRIL, 1971

PLANT EMBRYOLOGY

Behavior of Reproductive Cell Nuclei in Rudbeckia laciniata L. and Formation of a Mosaic Embryo with Semigamy - M. P. Solntseva	39	234
---	----	-----

PLANT PHYSIOLOGY

The Chloroplast Membrane Potential and Its Photoinduced Changes - A. A. Bulychev, V. K. Andrianov, G. A. Kurella, and F. F. Litvin	43	473
On Obtaining a Sugar Beet Tissue Culture - R. G. Butenko and A. I. Atanasov	46	477
Characteristic Properties of the Photosystems of Chloroplasts in Mesophyll Cells and in Parenchymatous Sheaths of Vascular Bundles in Leaves of Monocotyledonous and Dicotyledonous Plants - Yu. S. Karpilov, K. Ya. Bil' O. G. Malyshev, and V. N. Karnaughov	49	480

Effect of Phosphorus Nutrition on Water Metabolism and the State of Water in Plants in Unfavorable Moisture Conditions — F. D. Samuilov	53	484
Nitrogen-Fixing Enzyme Complex from Root-Nodule Bacteroids of Lupine and Soya — Academician Ya. V. Peive, B. A. Yagodin, M. S. Savich, G. A. Ovcharenko, S. G. Yuferova, and A. V. Malinovskii	57	721
PLANT CYTOLOGY		
Effect of the Fungus <i>Botrytis cinerea</i> on Certain Ribosome Characteristics in Cabbage Tissues — B. A. Rubin, V. A. Aksanova, and Nguyen Din Guen	60	937
Role of Sulfur in Biosynthesis of Sulfur-Containing Amino Acids in the Blue-Green Alga <i>Anabaena variabilis</i> Kutz — B. B. Volodin	63	1207
A New Approach to the Link between Respiration and Energy-Requiring Physiological Processes — V. N. Zholkevich, D. I. Volkov, V. N. Prudnikov, and I. L. Shidlovskaya	66	1210
Interpretation of the Bioelectrical Reaction of a Plant to Excitation, with the Action of Light as Example — G. A. Volkov and L. A. Mis'yuk	69	1435
Respiratory Activity of the Plasmalemma of Wheat Roots — L. Kh. Gordon and A. A. Bichurina	72	1438

VOLUME 198, NUMBER 3, MAY-JUNE, 1971**PLANT PHYSIOLOGY**

Resistance of Winter Wheat Tissues to Freezing and Dessication under Adverse Gas Regimes — G. A. Samygin, Z. G. Rakitina, and A. Z. Livshin	77	224
Substances from Green Leaves as Possible Regulators of the Light Reactions of Chloroplasts — E. A. Akulova and E. N. Mukhin	81	956
Influence of Day Length on the Level of Activity of an Abscisin-Like Inhibitor in <i>Rudbeckia</i> Plants — V. G. Kochankov	84	959
The Effect of pH on the Membrane Potential of the Root Hair — O. O. Lyalin and I. N. Ktitorova .	87	963
Effect of ATP, Inhibitors, and Uncouplers of Photophosphorylation on the Transformation of Xanthophylls in Leaves — V. S. Saakov	90	966
Isolation and Identification of Physiologically Active Indole-Type Substances from the Extracellular Metabolites of <i>Chlorella</i> — M. I. Tauts and V. E. Semenenko	94	970
Effect of Some Complex Illumination Sequences on the Rate of Sexual Maturation in <i>Arabidopsis</i> — L. P. Velikanov and S. L. Pumpyanskaya	98	1221

VOLUME 199, JULY-AUGUST, 1971**PLANT PHYSIOLOGY**

Content of Auxins and Gibberelin-Like Substances in Wheat Coleoptiles of Different Ages — T. V. Likholat, L. P. Gruzdeva, E. V. Morozova, A. S. Levina, and L. S. Bizenkova	105	231
The Influence of Long and Short Day Leaf Metabolites on the Blooming of <i>Bryophyllum</i> Shoots — M. Kh. Chailakhyan and L. I. Yanina	108	234
Glycolytic Enzymes in Growing Cells of the Corn Root — I. V. Zeleneva and É. E. Khavkin . . .	112	481
Effect of Separate and Combined Treatment with Chlorocholine Chloride and Gibberelin on the Growth and Flowering of Long-Day Species — V. G. Kochankov	116	485
Ultrastructure of Mycorrhiza of the Garden Pea (<i>Pisum sativum</i> L.) — M. A. Protsenko, N. M. Shermakhanova, and L. V. Metlitskii	120	722
Changes in the Photosynthetic Activity of Millet during Selection in the Southeast USSR — V. A. Kumakov and V. V. Kamenskii	123	724
Effect of Heat Hardening on the Extractability and Heat Resistance of Water-Soluble Proteins from Wheat Leaves — A. M. Shcherbakova	126	727

Inclusion of Exogenous Sucrose into Free Amino-Acids Metabolism in Winter Cereals under Low Temperatures — V. I. Babenko	129	968
An Immunochemical Study of the Proteins of Maize Root Growth Zones — E. E. Khavkin, A. I. Antipina, and S. I. Misharin	132	972
Requirement of Aerobic Cells for Hydrogen Peroxide — A. A. Gurevich and T. K. Zakharova	136	1200
Polymeric Iron Orthophosphate, a New Compound in Various Fungi — L. A. Okorokov, V. P. Kholodenko, and I. S. Kulaev	139	1204
Possibility of Using Transitional Processes to Increase the Efficiency of Photosynthesis in the Unicellular Alga Chlorella — F. Ya. Sid'ko, I. A. Tereskov, G. F. Beresnev, N. S. Eroshin, and V. A. Zakharova	141	1206

VOLUME 200, SEPTEMBER-OCTOBER, 1971

PLANT PHYSIOLOGY

Changes in the Properties of the Photosynthetic Apparatus of <i>Vicia faba</i> L. Plants with Changes in Light Conditions — Kh. Ya. Khein, O. P. Osipova, and A. A. Nichiporovich	147	244
Effect of Gibberellin on RNA and Protein Content of Corn Sprout Leaf and Coleoptile Node — M. A. Stroganova	151	740
Study of the State of Water in Pea Stems by the Method of Dielectric Measurements at SHF — N. N. Ishmukhametova and A. V. Startseva	153	996
Effect of Damage to the Root Meristem on Seed Reserve Mobilization and Growth in Corn Seedlings — A. A. Peshkova, F. É. Reimers, and É. E. Khavkin	156	1476

VOLUME 201, NOVEMBER-DECEMBER, 1971

PYTOPATHOLOGY

Use of the Water-Soluble Carcinogen Auramine-00 to Induce Cell Hypertrophy in Seedlings of Flowering Plants and Prevention of Such Hypertrophy with Actinomycin D — É. I. Slepyan and A. M. Kotin	161	747
Mycellium of <i>Ustilago maydis</i> (DC) CDA in Tissues of Pathological Over-Growths in Blister Smut of Corn — I. V. Karatygin	165	1500

PLANT ECOLOGY

The Number of Adventitious Roots in the Structure of Meadow Phytocenosis — T. A. Rabotnov and A. P. Demin	169	246
--	-----	-----

PLANT PHYSIOLOGY

Influence of Drought in Modifying the Soluble Proteins in Wheat Leaves — T. V. Oleinikova	173	250
Certain Features of the Violaxanthin Deepoxidation Reaction — I. A. Popova, E. F. Ryzhova, and D. I. Sapozhnikov	175	494
Reutilization of Nutrient Medium Prepared with Seawater during Cultivation of the Alga <i>Platymonas viridis</i> Rouch. Sp. Nov. — L. V. Spektorova	178	497
Photostimulation of Oxidative Activity in Isolated Plant Peroxisomes — A. A. Shakhev, V. A. Zanchenko and M. B. Churina	180	994
The Reaction of Deepoxidation Xanthophylls to the Electron Transport Cycle of Photosynthesis — V. S. Saakov	184	1257

INDEX

Author Index, Volumes 196-201, 1971	191
Tables of Contents, Volumes 196-201, 1971	193



